## What is claimed is:

- 1. A method for supplying a unified suite of quantification functionality for density functions defined in a three-dimensional space including two or more of the services selected from the group consisting of:
  - (a) Computating of the volume of a region where a density lies above a specified threshold, below a specified threshold, or between two specified values;
  - (b) Computating of an integral of a density.
  - (c) Estimating of a rate of change of a density with respect to time;
  - (d) Estimating of a local or global failure of conservation of a superstrate within the region represented by changes with time in density;
  - (e) Estimating of a local or global rate at which material with a changing density is passing through a specified surface within the region or at a boundary of the region; and
  - (f) Separating of density of a material into free and bound densities with a changing density.
- 2. The method of claim 1 wherein the density function in at least one service varies in time.
- 3. The method of claim 1 wherein the density function in at least one service does not vary in time.
  - 4. The method of claim 1 wherein (c) is restricted to a specified region.
  - 5. The method of claim 1 wherein estimation of local or global failure of conservation is performed with an implemented transport model.
  - 6. The method of claim 1 wherein estimation of the global rate or local rate at which a superstrate with a changing density is passing through a specific surface is performed with an implemented transport model.

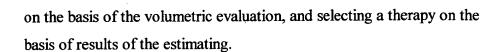
- 7. The method of claim 1 wherein at least two services used in the method each yields an answer for restriction of a density to a specified region.
- 8. The method of claim 1 where a density is obtained by a three-dimensional scanning process.
- 9. The method of claim 1 wherein a density is obtained by a numerical simulation process.
- 10. The method of claim 1 wherein a density is obtained by an algorithm specification.
- 11. The method of claim 1 wherein the volume in (a) is estimated by counting grid points.
- 12. The method of claim 1 wherein the volume in (a) is estimated by approximation within eight-cornered volume elements.
- 13. The method in claim 12 wherein the approximation within said eight-cornered volume elements is performed by fitting a boundary surface to interpolated edge points of said volume elements.
- 14. The method of claim 1 wherein the volume in (a) is estimated by finding the volume contained in a triangulated surface approximating the boundary of said region.
- 15. The method in claim 14 where the volume contained in said surface is computed by summing signed volumes of prismatic domains obtained by projecting triangles parallel to a coordinate axis.

- 16. The method of claim 1 wherein the integral in (b) is estimated by summing density values at grid points.
- 17. The method of claim 16 wherein a grid point near an edge of a region of restriction contributes a value weighted by a fraction of an immediate neighborhood of a grid point that is in the said region.
- 18. The method of claim 16 wherein the integral in (b) is estimated by fitting local approximations to the density and summing integrals of these approximations.
- 19. The method of claim 18 wherein a local approximation near the edge of a region of restriction contributes its integral over part of its domain that is in said region.
- 20. The method of claim 1 wherein said density comprises a concentration of a drug or other molecular substance in an organism.
- 21. The method of claim 1 wherein said density refers to the concentration of a class of cell in an organism.
- 22. The method of claim 1 wherein said density refers to the concentration of microscopic devices inserted into an organism.
- 23. The method of claim 20 wherein said organism is a human body.
- 24. The method of claim 21 wherein said organism is a human body.
- 25. The method of claim 22 wherein said organism is a human body.
- 26. The method of claim 20 wherein said region is within a human brain.



- 27. The method of claim 21 wherein said region is within a human brain.
- 28. The method of claim 22 wherein said region is within a human brain.
- 29. The method of claim 1 wherein the density represents molecules, cells or devices inserted into an organism, body or brain for therapeutic purposes.
- 30. The method of claim 29 wherein said density is obtained by simulation of the transport and action of said molecules, cells or devices.
- 31. The method of claim 20 wherein said density within the body, and said molecules or cells are part of a normal process or disease process.
- 32. The method of claim 1 wherein said density refers to a material being transported by a geological process.
- 33. The method of claim 1 wherein said density refers to a material moving through a structure created by human agency.
- 34. The method of claim 1 wherein said density is a mathematical construct convenient in defining three-dimensional shapes for the purposes of computer-aided design.
- 35. A method for effecting a therapy upon a patient comprising volumetrically evaluating a volume of a body of the patient by assuming available locations or a specific location for introduction of a therapy, estimating a dynamic response of administration of a material at the specific point or at the various points to determine the dynamic response

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- 36. The method of claim 35 wherein the selected therapy is then approved for use on a patient.
- 37. The method of claim 36 wherein the selected therapy is performed on the patient.